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ABSTRACT

This guide, which is intended for project directors, coordinators, and other professional staff involved in developing and delivering workplace education programs, explains the process of conducting a job task analysis to create customized curricula to meet the workplace education students' needs. After a brief discussion of the rationale for conducting a job task analysis, the job task analysis process is described as a procedure whereby supervisors and competent workers are observed, questioned, interviewed, and asked to supply materials so that the work-related competencies and basic skills required to perform a given job can be identified and used as a basis for developing a job-specific curriculum. Provided next are general guidelines for conducting a job task analysis and specific guidelines for interviewing/observing and collecting and organizing information. Also included are the following: sample employee and supervisor questionnaires; lists of reading, grammar/usage, math, writing, and speaking skills typically required in the workplace; lists of selected work-related competencies in the areas of identifying/using resources, working with others, acquiring/using information, understanding complex interrelationships/systems, and working with technology; and a sample job task analysis form. Contains a list of nine informational resources. (MN)

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Conducting the Job Task Analysis

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Conducting the Job Task Analysis

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Conducting the Job Task Analysis (JTA)

Just as lifeskills instruction is based on the basic skills necessary for our students to function in daily life, workplace instruction is based on the basic skills necessary for our students to function in their jobs. Both forms of instruction are grounded in basic skills; however, the context in which the basic skills are taught is different.

Many adult educators have developed lifeskills instructional materials for their students. These lifeskills materials are often based on the students needs and interests, and the experience of the adult educator. The curriculum uses realia, events, and tasks that almost every citizen in the community encounters daily. Because the lifeskills functional context is familiar, adult educators generally find the development of these instructional materials to be relatively easy.

Although workplace education curricula is also based upon the functional context approach, many adult educators become uneasy when faced with the task of developing workplace instructional materials. The context in which the basic skills are to be taught is not as familiar to the educator as the lifeskills context. Frequently adult educators find themselves in businesses that make or provide services the general public seldom thinks about or sees. Because the job tasks and context is unfamiliar to the adult educator, curricula development is a more complicated task.

The job task analysis process is designed to assist adult educators in understanding the context in which the basic skills will be taught, as well as the basic skills proficiency levels necessary to perform tasks on the job. This process will provide the adult educator with the informative pieces necessary in creating customized curricula which is essential to meeting the needs of the workplace education student.

This guide will provide project directors, coordinators and professional staff the steps involved in conducting a job task analysis. Readers will be able to identify the underlying principles and purpose of performing the JTA; to perform the suggested steps of conducting a JTA; and understand the relationship between critical job task identification, basic and language skills and workplace competencies to organize the findings of the JTA. Several supplemental resources are listed in the back of this guide for additional information on the job task analysis process.

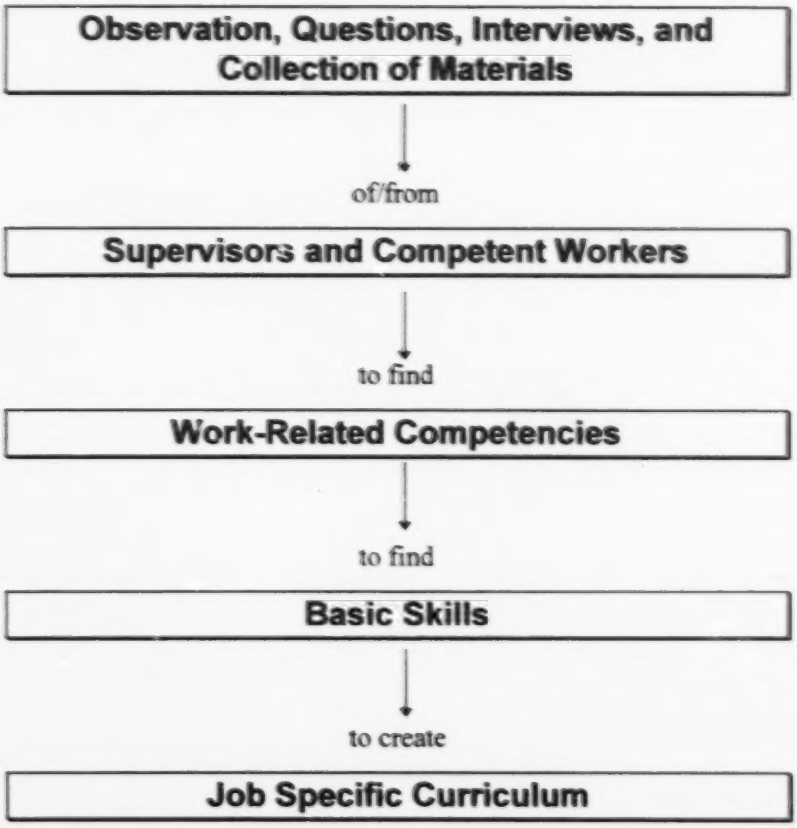
Why perform a job task analysis?

As alluded to in the introduction, a job task analysis allows the adult educator to develop workplace instructional material or curricula that is workplace site specific and addresses the needs of the workplace students and business. Although there are some published workplace texts that can provide supplemental instructional material, none to date address site specific concerns, goals or objectives. Site specific workplace education curricula must be developed by the adult education provider to effectively meet the goals of the workplace education program. The JTA is one of the first steps in developing customized curricula.

Additionally, the JTA process provides adult educators the opportunity to familiarize themselves with the company culture and operations. This does not mean that the adult educators will necessarily be experts on all of the jobs or tasks performed by the employees. However; the adult educators will be able to learn company vocabulary and become comfortable working in a new environment. It is important to note that it is not necessary for adult educators to learn all of the jobs of the employees. As in any adult education setting, the students will bring the specific knowledge of their lives or work lives. Adult educators will only use the context of the job as a foundation in which the necessary basic skills are taught. This interaction enhances the learning process.

What is a job task analysis?

As the following illustration shows, the job task analysis consists of: a series of interviews with supervisors and competent employees; observations and job shadowing of competent employees; and the collection of workplace materials used to perform critical job tasks. This allows adult educators to find work related competencies and basic skills involved in these tasks to create level appropriate job specific curriculum.



Conducting the Job Task Analysis

How do you conduct a job task analysis?

Although each worksite will differ in procedure and policy, the following guidelines provide the common steps involved in conducting a JTA.

Guidelines for Conducting a Job Task Analysis

- Schedule times for job-site visits and interviews with supervisors or managers.
- Schedule times for job-site visits, job shadowing, and interviews with competent employees.
- Request and review job descriptions and requirements for positions of the employees you will interview and observe.
- Request and review available training materials (manuals, job aids, pamphlets) that deal with the defined critical job tasks.
- Become familiar with literacy skill applications and work-related competencies.
- Conduct the job task analysis.
- Organize the information collected to develop site-specific workplace curricula.

These guidelines suggest the sequence of steps that will permit the adult educator to collect the information necessary to develop a workplace basic skills curriculum.

Who do you interview and observe?

Because the JTA process occurs after the critical job tasks have been identified by the Workplace Education Advisory Council, the business partner will schedule visits and job shadowing with the appropriate supervisors and employees. These supervisors and employees will be those who supervise or conduct the job tasks that were deemed critical by the Advisory Council. It is important to focus the JTA on the critical job tasks that the business wants to address in the instructional program because in part it is through improvement of these tasks that the business will measure the success of the workplace education program. For more information on critical job tasks, please see the guide in this series *Identifying Critical Job Tasks*.

What information do you collect?

Adult educators conducting a JTA will question, observe, and collect materials to gather **processing** and **contextual** information. Processing information refers to the critical thinking skills and basic skills that are necessary to complete the critical job tasks. Contextual information refers to the context in which the processing information (critical thinking and basic skills) is used. For example, a person conducting a JTA may ask a competent employee hypothetical questions that highlight the problem solving skills necessary on the job. A person conducting a JTA may ask an employee, "What if the machine locks up? What would you do?". These types of questions allow the employee to illustrate the processing and the contextual information as well as provide additional workplace documents or other materials used on the job. This collection of information allows the adult educator to analyze the basic skills used and

estimate the level at which the basic skills are performed. Additionally, written material permits the adult educator to perform a readability measure to ascertain the reading level required by the job.

The following are some sample questions to ask employees and supervisors in interview or survey form.

Employee Questionnaire

Sample Questions

Note: Interviewer should request all written workplace information and material possible.

1. What is your job title?

   _____

2. What are the major duties or tasks you perform on the job?

   _____

   _____

3. Please describe how you do each task.

   _____

   _____

4. For each duty or task:
   a. Do you work with others to complete the task?
   b. What materials do you use to complete the task?
   c. Will you show me how to do the task?
   d. What do you read to perform the task?
   e. What do you write to complete the task?
   f. Do you use math (plot graphs, read charts or use measurement)?

5. What skills would you like to improve or what would you like to learn to do?

Supervisor Questionnaire

Sample Questions

Note: Interviewer should request all written workplace information and material possible.

1. What do you look for in your employees?

   _____

   _____

2. What jobs require the following skills?

   a. reading

      _____

   b. writing

      _____

   c. math

      _____

   d. communication (speaking and listening)

      _____

3. How do you feel your employees do in each skill area?

4. How would you measure improvement of these skills?
   What would you notice?

5. What written material used on these jobs may I have?

There are many obvious questions that can supplement the above questionnaires. It is beneficial for the interviewer to facilitate conversation during the interview process by practicing active listening techniques. For example, interviewers can restate what they heard. This simple technique validates the information received and allows for clarification.

What are workplace basic skills and work-related competencies?

Basic Skills

The basic skills used on the job are the same that adult educators teach in their programs. While conducting a JTA the adult educator will look for the use of reading, grammar/usage, math, writing, speaking, and the skills involved in each of these categories. For example, the adult educator may find the use of:

Reading	Grammar/Usage	Math	Writing	Speaking
skimming	abbreviations	adding	forms	restate
scanning	comparatives	subtracting	business letters	summarize
cause/effect	parts of speech	multiplication	memos	report
predicting outcomes	noun	division	notes	interview
comparing / contrasting	pronoun	fractions	charts	describe
summarizing	verb	interpret graphs	other	question
reading basic charts	adjective	measurements		other
categorizing and classifying	adverb	metric conversions		
other	spelling rules	other		
	other			

Work-related Competencies

Lifeskills competencies are based upon those tasks people must be able to perform in order to function in their day to day lives. The same holds true for work-related competencies. They are the competencies that employees must be able to perform on the job. Just as lifeskills competencies provide the context in which the basic skills are taught, work-related competencies will provide the context on which the workplace curricula will be based.

In 1991, the U.S. Department of Labor and the Secretary's Commission on Achieving Necessary Skills published a series of reports that outline five workplace competencies. The following chart provides an overview of these competencies. These are the competencies that will provide the context in which the workplace basic skills are taught.

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Five Competencies

Resources: Identifies, organizes, plans and allocates resources

A. Time - Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules
B. Money - Uses or prepared budgets, makes forecasts, keeps records, and makes adjustments to meet objectives
C. Material and Facilities - Acquires, stores, allocates, and uses materials or space efficiently
D. Human Resources - Assesses skills and distributes work accordingly, evaluates performance and provides feedback

Interpersonal: Work with others

A. Participates as Member of a Team - contributes to group effort
B. Teaches Others New Skills
C. Serves Clients/Customers - works to satisfy customers' expectations
D. Exercises Leadership - communicates ideas to justify position, persuades and convinces other, responsibly challenges existing procedures and policies
E. Negotiates - works toward agreements involving exchange of resources, resolves divergent interests
F. Works with Diversity - works well with men and women from diverse backgrounds

Information: Acquires and uses information

A. Acquires and Evaluates Information
B. Organizes and Maintains Information
C. Interprets and Communicates Information
D. Uses Computers to Process Information

Systems: Understands complex inter-relationships

A. Understands Systems - know how social, organizational, and technological systems work and operates effectively with them
B. Monitors and Corrects Performance - distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions
C. Improves or Designs Systems - suggests modifications to existing systems and develops new or alternative systems to improve performance

Technology: Works with a variety of technologies

A. Selects Technology - chooses procedures, tools or equipment including computers and related technologies
B. Applies Technology to Task - Understands overall intent and proper procedures for setup and operation of equipment
C. Maintains and Troubleshoots Equipment - Prevents, identifies, or solves problems with equipment, including computers and other technologies

While reviewing the SCANS competencies, it is easy to see the context that will act as the foundation of the workplace basic skills instructional material. The next section of this guide will demonstrate how to organize this information while reviewing the materials collected during a job task analysis.

How do you organize the information of a job task analysis?

Through the employee and supervisor questionnaires, interviews, employee observations, and/or job shadowing, the adult educator will have the opportunity to uncover workplace competencies required on the job and the basic skills used to perform critical job tasks. Due to the great amount of information collected and because the interview, observation and job shadowing techniques happen quickly, the adult educator must be prepared to organize and record information immediately. The following chart may assist in organizing this information during the job task analysis in a timely manner.

Job Title: _____ **Date:**_____

Department: _____

Job Task/Duty	Workplace Competencies	Basic Skills

This chart will assist the adult educator in recording job specific information, the workplace competencies associated with the job task, and the basic skills necessary to complete the job task. This form should be used during the JTA and immediately following the JTA because it organizes the information obtained during the JTA and will assist in further analysis of the job tasks. Reviewing each job task after the JTA allows the adult educator to ensure that the information is complete, and it sparks future questions. Each job task observed will be recorded on a separate sheet. The following is an example of a completed JTA form for one job task.

Conducting the Job Task Analysis

Job Title: Clerk I **Date:** October 23, 1995

Department: Gadget Manufacturing Dept. Q

Job Task/Duty	Workplace Competencies	Basic Skills
• Receive a *Request For Service* to type a memorandum	• SCANS: Resources, Interpersonal, Information, Technology	• Reading (compare and contrast, scanning) • Math (estimating time) • Speaking (questioning, asking for clarification) • Grammar/Usage (spelling, punctuation) • Writing (memo format)

The analysis shows that the employee who does this job task is performing the following workplace competencies:

- Resources: allocating time and materials
- Interpersonal: working on a team; serving internal and external customers
- Information: interpreting and communicating; using computers to process information
- Technology: applying technology to specific tasks

Moreover, in performing these workplace competencies the employee is using the following basic skills:

- Reading: comparing and contrasting written information; scanning written information
- Math: estimating the time needed to complete the task
- Speaking: asking for clarification of directions; asking questions
- Grammar/Usage: spelling and punctuation
- Writing: formatting the memorandum

This is only one task of many observed. After collecting the information from all the tasks observed, the adult educators will be able to develop a site specific curriculum that addresses the job tasks deemed critical by the advisory council. For example, the advisory council might have decided that the poor communication between Department F and Department Q has caused many problems in production, safety and morale. .Because these departments work separate shifts, the

primary mode of communication is written memos, production reports, discrepancy reports and written anecdotal information. After the adult educators have conducted the JTA, they might find common basic skills problems throughout all of the tasks observed. This provides a basis for the curriculum that addresses the critical job task of written communication. The adult educators will also perform a readability measure of written information to ascertain the basic skills levels necessary to perform the tasks.

As mentioned in this scenario, once all job tasks have been analyzed and organized, the adult educator will plan and develop the workplace education curriculum. For more information on curriculum development, please see the guide in this series *Developing Workplace Education Curriculum*.

This guide has focused on the steps involved in conducting a JTA; the underlying principles and purpose of performing the JTA; and the relationship between critical job task identification, basic and language skills and workplace competencies to organize the findings of the JTA.

For more information and ideas about conducting a job task analysis, please refer to the references located in the back of this guide. As always, the Office of Adult Education will provide technical assistance or training to facilitate your workplace education program development.

For assistance contact: **Douglas Glynn**
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(303) 866-6936

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Notes